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An Indonesian Example of Teaching English via Environmental Education

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This essay describes the development of an English coursebook that drew upon environmental education for the content. The book was designed to assist Indonesian university students in learning English as a Foreign Language (EFL). The three authors of the present essay served as the book's three editors. The authors of the individual lessons in the coursebook were lecturers at Indonesian universities.

The essay begins with a brief introduction to environmental education. Next, common methodological foundation of environmental education and second language instruction are considered. These include learner centeredness, connecting class activities with students' lives outside school, curricular integration, a focus on learning for meaning, valuing diversity, concern for process and long-term effects, a preference for cooperation rather than competition or individualism, and teachers as fellow learners. Student participation in environmental education is emphasized. Finally, the process of the book's development is described and sample materials are shown and explained.

Keywords: environmental education, English teaching, second language instruction, foreign language instruction, teaching methodology, curricular integration.

1. Introduction

Indonesia is one of our planet's largest countries and the repository of some of its most precious natural resources, including rainforests and the flora and fauna residing there. Unfortunately, every year, more and more of the flora and fauna of Indonesia disappear. It would be too simplistic to state that people's awareness of environmental issues is low. Traditionally, Indonesians reused materials. However, as the world is changing, Indonesia is struggling, and Indonesians find themselves in a transition process. Old practices in use and conservation of nature do not always match emerging practices and demands of the modern world.

In the old days, for instance, people used banana leaves to wrap food sold in the markets. Then, they threw away the leaves. This practice did little harm to the environment, as the materials discarded were usually bio-degradable, and human populations were small and less dense. However, banana leaves have largely been replaced by plastic bags. These plastic bags are not-biodegradable and, along with other elements of modern, disposable culture, have come to constitute an environment hazard. In the face of such new realities, education and societal adjustments are needed if the country is to move towards practices that are friendlier to the environment.

Natural resources, in primary and secondary form, constitute a large share of Indonesia's exports. Thus, strong economic pressure exists to use, rather than conserve, environmental resources, if Indonesia and Indonesians are to keep up with developments in neighbouring countries and beyond. At the same time, Indonesia has heard calls from abroad and within

for conservation. For example, international and domestic environmental organisations are active in the country.

In an effort to raise young people's awareness of environmental conservation and to protect the country's environment, a group of Indonesian English teachers, assisted by two colleagues from Singapore, embarked on a cooperative project on English via Environmental Education. This project, the one described in the present essay, involved the creation of an English textbook (Lie, Jacobs and Amy 2002) to be used with non-English majors at Indonesian universities. One of the Indonesians and the two people from Singapore acted as the editors, while the others researched and wrote the chapters of the textbook.

English is a foreign language in Indonesia where it is seldom used in the daily life of most people. Nonetheless, it is the main foreign language of the country, and instruction on the English language begins as early as primary school. The national language and the medium of instruction in most university courses is Bahasa Indonesia, and many people also speak one or more of the many other local languages in this linguistically rich nation of more than 200 million human inhabitants.

The three authors of the present essay served as the book's editors. The essay opens with a description of environmental education. Next, environmental education in EFL (English as a Foreign Language)/ESL (English as a Second Language) is considered. Finally, the process of the book's development is described and examples are given of various features of the book.

2. Environmental education

Environmental education came to the fore in the last third of the 20th century in response to increasing levels of environmental destruction that humans were unleashing on the planet. In 1975, the United Nations established the International Environment Education Programme, now known as the United Nations Environment Programme (United Nations Environment Programme 2003). The IEEP formulated six objectives for Environmental Education (UNESCO-United Nations Environment Programme 1976). The text of these objectives follows below, accompanied by comments and an example of how each might be achieved.

Awareness. To help individuals and social groups acquire an awareness of and sensitivity to the total environment and its allied problems. For example, people reading a passage about air pollution might make students aware of this problem and the dangers it poses.

Knowledge. To help individuals and social groups acquire basic understanding of the total environment, its associated problems and humanity's critically responsible presence and role in it. For example, a text for listening comprehension could include information which would increase students' knowledge about the causes of air pollution and possible solutions to the problem.

Attitude. To help individuals and social groups acquire social values, strong feelings of concern for the environment, and the motivation for actively participating in its protection and improvement. For example, a story or song about endangered species could encourage students to care about protecting such creatures.

Skills. To help individuals and social groups acquire the skills for solving environmental problems. These include scientific and technological skills, but also language skills. For example, students can use their language ability to write pamphlets informing people about the risks caused by air pollution or letters to corporations or government bodies. Similarly, oral language skills would be important in convincing people to take action to decrease air pollution.

Evaluation Ability. To help individuals and social groups evaluate environmental measures and education programs in terms of ecological, political, economic, social, aesthetic, and educational factors. While everyone agrees that we must do something to protect the environment, there are many disagreements about how to do it. For instance, when they go shopping, students need to use reading and reasoning skills to evaluate which products are environmentally friendly or which are unnecessary. [Note: This objective has since been subsumed under others, so that now there are five objectives.]

Participation. To help individuals and social groups develop a sense of responsibility and urgency regarding environmental problems so as to ensure appropriate action to solve those problems. All the other five objectives come to nothing if students and others do not translate their awareness, knowledge, attitudes, skills, and evaluation ability into action. See the Appendix for a list of suggestions for participation.

3. Environmental education in EFL/ESL teaching

3.1 Objectives

The link between, on the one hand, the use of language and, on the other hand, attitudes towards the environment has been examined by linguists, such as Goatly (1996) and Halliday (1987). For example, the use of terms such as “vacant land” represents a perspective in which other elements of nature are viewed solely in terms of their usefulness for humans. Similarly, the use of “who” exclusively with humans and the use of “which” or “that” with nonhuman animals imposes what some might argue is an artificial separation of fellow animals (Jacobs, 2004).

Furthermore, the combination of English teaching and environmental education is not a new one (for example, Donlon 1996; Jacobs, Kumarasamy, Nopparat, and Amy 1998). Jacobs and Goatly (2000) examined the presence of environmental issues in coursebooks published between 1990 and 1998 for use by EFL/ESL learners. Seventeen randomly selected coursebooks were analysed in order to find the percentage of activities related to environmental issues. The 17 books contained 6,167 activities, an average of 363. Of those, 134 (2%) had environmental content, an average of eight activities per book. Four of the books had an entire unit or lesson devoted to environmental issues. The percentage of activities with environmental content ranged from two books with none to one book with 8%.

The activities with environmental content were then examined to establish whether they involved participation in environmental protection (United Nations Environment Programme’s Environmental Education Objective #6). This was done because participation was seen as the objective most often lacking in Environmental Education. Seventy-six (57%) activities with environmental content did not involve any type of participation on behalf of the environment. Three (2%) asked about students’ own or classmates’ participation. Another three (2%) questioned students about participation by others besides

themselves and their classmates. Twenty-two (16%) of the activities with environmental content asked to read/listen to accounts of participation by others. In eight (6%), students read/listened to someone urge participation. Another eight (6%) asked students to simulate participation, 12 (9%) described possible participation, and 2 (1%) called for actual participation.

In looking at existing Environmental Education materials and EFL materials that used Environmental Education content in Indonesia, we (the developers of the book described in the present essay) noticed that most stopped at the awareness or knowledge levels. While these levels form a necessary foundation, we felt that, in particular, most materials lacked Objective Six in the United Nations Environment Programme's list of Environmental Education objectives: participation. Thus, as will be discussed in greater detail later in this essay, for many of the lessons in our coursebook, we consciously attempted to include ways that students could be actively involved in protecting the environment, in addition to including a range of the other Environmental Education objectives.

3.2 Methodological foundations

The literature on second and foreign language pedagogy has long emphasized a focus on meaning rather than on form to achieve both communicative competence and accuracy (Breen and Candlin 1980; Widdowson 1978). Content-based language teaching provides an important vehicle for achieving this focus on meaning (Crandall 1987; Swain 1999). Content can come from a variety of sources, such as personal matters, for example students' favourite music and food, occupational areas as in Language for Specific Purposes, such as future engineers reading about engineering, and global issues, such as peace, human rights, and environmental education (Cates 1990).

The growth of Environmental Education reflects a new way that humans view nature. We believe that many of the changes in human view of the environment have parallels in changes in second language teaching methodology. Table 1 presents an overview of these parallels (For more detailed discussion, see Jacobs 1993, 1995; Jacobs and Farrell 2001).

4. The book project

We endeavoured to develop materials which combined the U.N.'s six Environmental Education objectives—knowledge, awareness, attitude, skills, evaluation ability and participation—and the methodological features in Table 1—learner-centeredness, links with the communities where students live, diversity of learning formats, curricular integration, thinking skills, teachers as participants and models, and cooperative learning. Of course, few of the units and lessons we developed include every one of these objectives and features.

4.1. Teaching the language

On the language side, a five-step procedure was used to teach grammar and other language points. This procedure was somewhat similar to the more inductive approach used by Ellis and Gaies (1999) to encourage students to notice key language features.

Comprehension. Students do a pre-reading activity to call up relevant schema. For example, before reading a text about dynamite fishing, students did the following cooperative learning activity:

BEFORE YOU READ

1. Look at the table below. What do you know about fishing? Write what you know first in column “K” of the K.W.L table.
2. Then share your knowledge with your partner.
3. Each pair then finds another pair to form a group of four, and each person shares their knowledge again. Make a copy of the table format on a large piece of paper and write your group’s ideas on this.

Table 1. Trends in second language instruction and their environmental parallels

#	New views of the environment and their examples	New trends in second language instruction and their implications
1	<i>View:</i> Nature has the right to be active and exist independent of people. <i>Examples:</i> Nature reserves; Protection of endangered species.	<i>View:</i> Students should be active; Independence should be encouraged. <i>Implications:</i> Learner-centeredness; Education linked with the communities where students live.
2	<i>View:</i> Diversity in nature is recognized and encouraged. <i>Examples:</i> Protecting biodiversity.	<i>View:</i> Diversity among students is recognized and encouraged. <i>Implications:</i> Learner-centeredness; Using methods which suit a variety of different learning styles and intelligences.
3	<i>View:</i> Nature exists best as an integrated whole. <i>Examples:</i> Protecting the entire web of life.	<i>View:</i> Students learn best when knowledge is presented as an integrated whole. <i>Implications:</i> Integrated curriculum; Theme/Content-based instruction.
4	<i>View:</i> Concern for the long-term effect on the environment of how we do things, for instance, go to work and school. <i>Examples:</i> Alternative energy; Reusing and recycling materials; Reducing the amount used.	<i>View:</i> Concern for the process and long-term effect of instruction. <i>Implications:</i> Learning how to learn; Thinking skills; Intrinsic motivation; Links with the communities where students live.
5	<i>View:</i> Humans should join with nature rather than seek to separate from nature. <i>Examples:</i> More time spent on outdoor activities; Real plants in homes.	<i>View:</i> Teachers should join with students. <i>Implications:</i> Teachers read and write along with students; Before and while students and teachers collaborate, teachers model the behaviours they want students to use.
6	<i>View:</i> Cooperation, not competition, between nature and humans is emphasized. <i>Examples:</i> We seek to live with nature, not to conquer it; Not using products made from endangered species.	<i>View:</i> Cooperation, not competition, between students is emphasized. <i>Implications:</i> Cooperative learning techniques; Collaborative skills taught.

4. Make sure everyone in your group is ready to present your group's knowledge to the whole class.
5. Next, each person in the group thinks of two questions they want to get answers on about catching fish. You can write your questions in column "W" of the K.W.L. table.
6. Now you can read the passage about catching fish on your own. After reading, write three things that you have learned from the reading in column "L" of your own table. Some of your questions may not be answered from the text. If there are some things you wanted to find out in the "W" column and did not find out, transfer these to the "L" column. Later on, you can do some research to get more information on your unanswered questions.
7. You will use the information from the K.W.L. table in the project later on.

K.W.L. Table

K - What we <u>know</u>	W - What we <u>want</u> to find out	L - What we have <u>learned</u> and still want to <u>learn</u>

Then, students read a passage containing the environmental and language foci of the lesson. Next, students work together to respond to comprehension and discussion questions related to the environmental content of the passage.

Noticing. Students return to the reading passage to do an activity to help them notice the grammar point that is focused on in the lesson. For example, here is a reading passage followed by a noticing activity:

Garbage Collectors

Indonesia has two types of garbage collectors. The first type only takes some of the garbage. The second type of garbage collector removes the rest of the garbage. This article concerns both types of garbage collectors. The first type are called scavengers (in Bahasa Indonesia, they are called *pemulung*). Have you ever seen any of them? They are heroes in the effort to protect our environment, because they help to reuse and recycle.

Pak Abu is a typical scavenger. He wakes up at 6:00 in the morning and goes out to collect garbage. Pak Abu walks from house to house looking through the garbage bins. When he finds something that he can sell, he places it in a plastic sack that he carries on his back. When he has a full sack, he brings it back to his house, where he sorts the garbage into different categories: glass, plastic bottles, paper, and metal. In the afternoon, Pak Abu repeats the same thing when he visits other homes.

Pak La Aba works for the government. He travels in a truck to collect all the garbage that Pak Abu does not take. Pak La Aba sends the garbage for burning or for burying in a landfill. Landfills are large holes dug in the ground to bury garbage. None of this garbage gets recycled or reused. If the government burns the garbage, the air fills with smoke. If the government buries the garbage, poison from the garbage gets into the land or the water.

To many people, a scavenger like Pak Abu has low social status. Nobody wishes to be a scavenger, but in fact Pak Abu occupies an important place in society because he helps protect our environment. By removing things from our garbage bins, he diminishes (makes less) the amount of pollution we create. So, the next time a scavenger like Pak Abu comes to your neighborhood, thank her or him. Maybe you can even help them by sorting your garbage.

Peek and Seek

In the passage, the third person singular (he, she and it) simple present tense verbs are underlined. Put a box around the verbs that were not formed by adding only -s or -es to the verb. The first one is done for you.

Understanding the grammar point. Students study a brief explanation of the grammar point. Ellis and Gaies (1999) do this differently and perhaps better than we did; they ask students to analyse how the grammar point functions and to formulate their own rule. Ellis and Gaies provide an explanation of the grammar point at the back of their book.

Practice. Students do contextualised activities to practice the grammar point. The activities also provide them with additional information on the lesson's environmental focus. Here, from the same chapter about garbage, is an example:

Fill in each blank with the correct form of the verb *be*. Be careful to identify the subject of the sentence before choosing the form of *be*. Also, other tenses, besides the present simple tense, are used.

Garbage, one of the main problems faced by the world's cities, (1) _____ increasing every day. Some of the people helping to solve this garbage problem (2) _____ scavengers who collect garbage for reusing or recycling. In Kendari, Sulawesi, one of the scavengers (3) _____ named Tono. Yesterday, he showed me some of the things he collected. Among the things he showed me (4) _____ an old book that today he (5) _____ going to give to the library. However, normally, Tono gets things such as newspaper, metal, and bottles.

The importance of Tono and other scavengers (6) _____ often overlooked. We do not appreciate these people. The benefits we receive from Tono's work (7) _____ ignored. Instead, all we think about (8) _____ that someone who works with garbage must be garbage too.

We need to change our view. A serious issue facing all human beings (9) _____ how can we reduce the amount of garbage we create. Tono and the other scavengers are giving us part of the solution. If we reuse and recycle instead of throwing things away, we can cut down on the huge garbage mountains we build every day. Additionally, reducing our use of disposable items, such as straws, (10) _____ another way to create less garbage. Let's all try to learn from Tono.

Communicative use. Students do a project involving them in an activity on behalf of the environment. Each project has a language element, and students are encouraged to try to use the lesson's grammar focus. Here are two projects from the same lesson about garbage collectors:

TAKE PART

Choose one of these two projects or create your own.

Project 1:

1. Work in pairs. Interview scavengers. Then write an article about scavengers to be sent to a local newspaper, government office, television station, etc. The letter you send can be in English and/or Bahasa Indonesia.
2. Each person in the pair should write one part of the article. Then put parts together. Next, show your piece to another pair. To give you feedback, use the following Project Peer Review Checklist:

- ☐ Is everything clear?
- ☐ Is there anything you would like to know more about?
- ☐ What is the purpose of this piece of writing? Will it accomplish its purpose?
- ☐ Is this piece of writing appropriate for the audience who will be reading it?
- ☐ What is the best sentence or paragraph? Why is it good?
- ☐ Is there anything you can learn from this piece of writing that can help you become a better writer?
- ☐ Each lesson in this book has a language focus. Is the lesson's language focus used in this piece of writing?
- ☐ Any suggestions for changing the vocabulary?
- ☐ Any other ideas for improving this piece of writing?
- ☐ _____ (Another point that the author(s) of the writing or your teacher wants you to pay attention to.)

3. Send the letter and let the class know if you receive a reply.

Project 2:

1. Use the table to keep a record of the garbage that you and your family generate in one week. Compare your results with those of three other students. Then make a plan for reducing the amount of garbage you create.

Cans & Other Metal (kg)	Newspaper (kg)	Other paper (kg)	Plastic (kg)	Glass (kg)	Food refuse (kg)	Total daily garbage (kg)

2. After you implement your plan, use the table to do another week's record of the garbage that you and your family generate. Based on this second week you recorded, write a brief report, using some present tense, about your family's typical habits in terms of the garbage they create. Read your report to your three groupmates to let them know if you have reduced the amount of garbage generated.

4.2. Teaching the environment

Languages are vehicles for communication, and modern language pedagogy teaches language via content about which students communicate. In too many coursebooks, this content is confined solely to relatively trivial matters, such as hobbies and favourite foods, taught in a way that does not help students see the impact they already have and can have on the world around them. In the case of the English textbook described in the present essay, the content deals with the environment, and the activities invite students to flex their citizenship muscles by attempting to protect the environment. Thus, students practice speaking, listening, reading and writing about the environment and using language and other means to actually protect Mother Earth.

Teachers using this coursebook offer their students many opportunities to communicate in the target language via a content-based approach. Particular emphasis is given to students' actual participation in protecting the environment by educating others, by putting pressure on companies or government officials to adapt more environmentally friendly practices and by reducing their own use of Earth's resources. Below is a variety of participation activities used in different lessons in the book:

- a. Collect songs related to environmental issues. The songs can be in Indonesian or English. Create a bilingual song book with each song in both Indonesian and English. Sell the book to raise funds for environmental causes. Arrange for a concert where songs from your book are sung. Make your song-book interesting by adding some pictures or photos related to the topics. You can use it as a present. *Note: You can also collect some poems, rhymes, folktales, proverbs, etc. Or you can write your own poems.*
- b. Interview one or two of your classmates about how they will participate in saving our forests (there is an example in the last paragraph of the reading passage). List the things they will do in your book. A week after, conduct another interview to check whether they still stick to their commitment or not.
- c. How can people you know be persuaded to use the practice of sasi [traditional practices that support sustainable use of natural resources] in their lives? Work in a small group to brainstorm ideas. For example, eating local foods would be one type of sasi. Or, you could only buy paper goods, such as notebooks, made from recycled paper. When you make your choice, put the sasi into practice for two weeks. At the end, tell others about what you did. You may want to use some gerunds to do this.
- d. In the passage, we read that an environmental NGO worked to preserve sasi practices. What are some environmental NGOs where you live? Visit one and work with them for half a day. Write a short note to tell others about the NGO and about what you did with them. Notice if there are any gerunds in your note.
- e. The main reason that the gelatik [a bird] is endangered is that poachers capture the birds and sell them to traders who, in turn, sell the birds as pets. This is part of the illegal and immoral international trade in wild animals. What about where you live? Are wild animals being sold for pets or other reasons,

such as for food? If so, make a plan to decrease the trade in wild animals. For instance, you could educate the public not to buy wild animals. Put your plan into action.

4.3. The book's authors and editors

Seventeen teachers from ten universities in Indonesia participated in the project. Several of them came from as far as Ambon, Kendari, Manado and Papua (in eastern Indonesia) under the sponsorship of Canada International Development Agency. The project included two workshops conducted in July, 2002 (at the Environmental Education Center, Seloliman, East Java) and October 2002 (in Surabaya, the largest city in East Java). Java is Indonesia's most populous island, and the nation's capital, Jakarta, is located in the western part of this island.

4.4. The writing process

During the first workshop, participants learned about environmental education and content-based instruction from resource people and by sharing with each other their own knowledge and experience. Then, participants brainstormed ideas for their own lessons and discussed possible formats for the book. The following points were agreed on in regard to how the book would address the environment.

A localized approach. A localized approach was used, treating global environmental issues, such as deforestation, within the Indonesian context. We hoped that such an approach would make the book more meaningful to Indonesians (Freire 1970), in contrast with books produced for the international market with examples from many different, often Western, settings. This is not to deny the value of international examples, but only to suggest that perhaps more balance is necessary. In other words, we can help understand content by providing them a mirror (to look at the content in their own context) and a window (to look at the same concepts and phenomena in settings different from their own) (Daniels and Zemelman 2004).

A positive approach. A positive approach was adopted, highlighting what people are doing to protect the environment in Indonesia. This constituted a crucial feature of the book. We felt that many environmental education lessons take too much of a doom-and-gloom attitude. We worried that students and teachers would already feel helpless to affect environmentally-friendly changes. By showing that people were indeed making a difference, we hoped to inspire students with the belief that they could too.

The components of each lesson.

Each lesson contains an environmental message, language focus and exercises, one main reading text, and an opportunity for students to take action, individually or collectively, to help improve the environment. This last section is very significant in that through real actions (see Appendix for a large list of possible actions), students use English creatively, purposefully, and functionally, as well as enhancing their participation in environmental education. In all, the book consists of 16 lessons linking English language learning and environmental issues. Among the themes of the lessons are garbage collectors (featuring the unofficial ones who collect garbage for reuse and recycling), traditional Indonesian herbal medicine, educating fishers about non-destructive fishing practices, and Sasi (traditional preservation culture). The environmental issues raised in each lesson are dominated by the local contexts of Indonesia.

Cooperative learning

Protecting the environment requires a cooperative approach, and what better place to practice cooperation than in the classroom? For this, as well as for pedagogical purposes, cooperative learning (Jacobs, Power and Loh 2002; Lie 2000) figured prominently in the coursebook. Cooperative learning involves students in working together with classmates and others, usually in groups of two, three or four. Advocates of communicative language pedagogy often recommend cooperative learning (Garcia Mayo and Pica 2000) as a means of involving students in active language use. We see this active involvement in the cooperative learning principle of simultaneous interaction, i.e. at any one time, many students are active, for example, if students are talking in pairs, 50% of students are speaking. Contrast this with the typical teacher-centred mode of instruction in which sequential interaction reigns, with only one person, the teacher or a student designated by the teacher, speaking.

A common pair of related problems that group activities involve one or two group members dominating their group and impeding the participation of others or, in contrast, one or two members attempting to leave all the work to their groupmates. Cooperative learning addresses these twin difficulties by intentionally structuring to provide each group member opportunities to participate and an obligation to do so. For instance, in Project 1 in 4.1.5, rather than student pairs writing a report together, each member of the group is responsible for one part of the report. In Project 2, also in 4.1.5, each member of a foursome is responsible for keeping a record of their own family's garbage and then attempting to reduce the amount of waste their family generates.

The central principle in cooperative learning is known as positive interdependence. This concept is in many ways an affective one, a feeling amongst group members that what helps one helps all and what hurts one hurts all. Environmental educators will immediately note how similar this is to the situation in regard to environment protection. For instance, a forest saved in one country means cleaner, healthier air in many other countries, and by switching to a vegetarian diet, humans promote their own health while at the same time saving the lives of nonhuman animals and sparing the environment the deleterious effects that accompany meat production.

The literature on cooperative learning offers educators many means of promoting positive interdependence:

- a. groups share a common goal and develop a common identity
- b. each group member has unique information or materials that need to be shared for the group to achieve its goal
- c. each group member has a unique role to play
- d. all group members celebrate and/or receive an award if the group achieves its goal

Encouraging student participation

As mentioned previously, the United Nations Environment Programme's Environmental Education objective of participation on behalf of the environment was key in the vision of the authors and editors. One tool that we used to keep this vision before us while writing and editing the book's lessons was that of a Council of All Beings (Seed, Macy, Fleming and Naess 1988). We represented this Council as a tree, a fish, an orang-utan and a butterfly.

These organisms were to judge our lessons based on whether students' actions in doing the lessons might reasonably lead directly to a better life for the Council's organisms, the organisms' families and related beings. We hoped to avoid producing yet another book which, like most of the books reviewed in Jacobs and Goatly (2000), were strong on talk about the environment and weak on action on behalf of the environment. The increased level of political openness present in Indonesia after the 1998 fall of the Suharto regime provided a potentially conducive atmosphere for greater citizen participation in the nation's affairs, including in protecting the nation's environment.

The editing process

The second workshop focused on editing and rewriting the lessons that the teachers had prepared in the intervening months. Feedback came from the editors as well as the other authors. During this process, everyone—authors and editors alike—deepened their understanding of the book's environmental education and language education foundations. This understanding was crucial, as our plan was for the authors and editors to later do workshops for other teachers on how to utilize the book. After new drafts were written, final editing was done by the three editors before the manuscript was sent to the publisher.

Tailoring the book to teachers' needs

We tried to keep in mind not only the needs of the book's future student users but also the needs of these students' teachers. First, non-English majors at Indonesian universities, the book's target audience, are often taught by part-time teachers with less background in language pedagogy. Second, some English teachers might feel uncomfortable teaching about the environment for various reasons. For instance, they might believe that expertise concerning environmental issues is needed. However, we felt that if teachers have a desire to protect the environment, they and their students can work together to learn what is necessary.

Additionally, teachers might feel that teaching anything else but language would mean stepping beyond the bounds of their mandate as English teachers. However, we felt that teachers, regardless of what subject they teach, have a wider responsibility to educate students about the rights and responsibilities of citizenship in their country and planet (Brown 1998; Johnston, Juhasz, Marken and Rolf Ruiz 1998). To provide an orientation for both students and teachers, the book's first lesson provides an overview of Environmental Education, including an explanation of the United Nations Environment Programme's six Environmental Education objectives.

Publishing and distributing the book

English via Environmental Education was published by PT Gramedia Widiasarana Indonesia, the country's largest educational publisher, in 2002. (If you would like to purchase a copy, please contact this essay's second author.) As we write this essay in late 2004, it is difficult to assess the book's effectiveness, as no figures are available as to sales. However, what we do know does not suggest that the book is being widely used. It appears that even many of the coursebook's authors are not using it or are using only one or two chapters, and the book cannot always be found in the publisher's extensive chain of bookshops.

How can we explain this apparent lack of success? While not enough data are available to reach any conclusions about the coursebook's fate or the reasons for it, certain obstacles in the way of greater use of the coursebook by its authors and other university English teachers may be playing a role:

- a. the book's price is a bit higher than some students may be accustomed to paying;
- b. the environment may not be seen as an appropriate topic for an entire book;
- c. some authors may have been principally motivated by goals other than protecting the environment, such as the opportunity to gain points for promotion by publishing a book chapter;
- d. some of the book's authors may have little power to choose which coursebook they use;
- e. many teachers are already familiar with the coursebook they presently use and are reluctant to change;
- f. book distribution in a large archipelago nation can be difficult;
- g. the publisher does not seem to be promoting the book;
- h. teachers may need some time and training to become comfortable with the book's more communicative, inductive methodology
- i. the hoped-for series of workshops around the book has not taken place. One idea for attracting teachers to these workshops was to provide answer keys to all workshop participants, as a decision was taken not to include an answer key in the coursebook to avoid students merely copying from the answer key, rather than trying the activities on their own before consulting an answer key.

5. Conclusion

We teachers, whether our subject is English or Engineering, Physical Education or Physics, have a dual role to play. As we seek to help our students develop their content knowledge, skills, and interest in learning, we also model and advocate an appreciation of the rights and responsibilities that each of us, even the youngest students, has as national and global citizens. This second, broader role as models of and advocates for citizenship might seem to be an added burden placed on us teachers' already overburdened shoulders. However, by bringing the world into the classroom, we enliven the classroom by giving meaning and immediacy to what might otherwise seem mundane learning tasks. Thus, rather than taking away from subject learning, a broader focus actually enhances subject learning.

The broader teaching focus described in this essay concerned protection of the environment, but, of course, many other worthy topics await, including human rights, peace/war and humans' relations with other animals. Attempting to address such topics may seem an impossibly daunting task for one teacher and a classroom of students who seem to have more than their hands full just grappling with the daily demands of textbooks, assignments and examinations. Perhaps, we can draw inspiration from the many examples around of involved, caring citizens. Furthermore, we can benefit from the guidance of thinking skills expert Edward de Bono who wrote, "If something needs doing, then do something about it. Don't just hope that someone else will. What is everyone's business also has to be someone's business" (1998: 8).

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Appendix

Ways to Include Participation in Environmental Education Lessons

# Ways	Actions
1 Community outreach	(a) posters; (b) skits; (c) teaching in kindergartens, universities, religious schools, high schools, primary schools, neighbourhood groups, and/or English classes; (d) the teaching can be done in any language, while students write first about their plans and later about their experiences in whatever language is requested by the teacher; (e) create a web page with information about a variety of local and global environmental issues.
2 Letters (hard copy or electronic) and petitions	<i>Sent to (locally and abroad):</i> (a) university/school officials; (b) government officials; (c) companies; (d) NGOs; (e) international organizations, e.g., UN, United Nations Environment Programme; (f) friends; and (g) pen pals/key pals. <i>Content of the letters:</i> (a) ask for information; (b) give suggestions; (c) tell about activities; (d) offer praise. Electronic alerts can be sent to encourage people to write letters and to furnish model letters.
3 Drawing and other art	(a) Students do before-and-after drawings to show either the ill-effects of humans on the environment or the positive effects of conservation efforts. These drawings are displayed; (b) Art exhibit/gallery sale with proceeds benefiting the environment.
4 Boycott products, such as those	(a) made from the bodies of endangered species; (b) that harm the environment.
5 Preference to buy certain products, such as those	(a) made of environmentally-friendly materials; (b) produced in an environmentally-friendly way.

6 Classroom and university- wide ideas

(a) reduce paper use; (b) recycle paper and other material; (c) use alternative energy; (d) plant trees; (e) look after a plot of land or even a few trees or plants, making a commitment to look after the inhabitants of the space; (f) teach peers or younger children how to care for pets or possibly not to have pets, as taking care of a pet is a big commitment, abandoned pets often face a sad life, and the pet trade may contribute to kidnapping of nonhuman animals; (g) help with animal companion programmes for elderly and disabled people; (h) promote vegetarianism – cookbooks, cooking demonstrations, photo exhibits, food stalls; (i) extend the availability of public transport for coming to and from school; (j) raise funds for environmental projects and organizations; (k) plan and conduct a campaign for administrative paper reduction; (l) conduct surveys of family and home practices and try to make changes before a second survey is conducted; (m) donate books that are not being used any more to the campus library; (n) collect old clothes to give to people in a foreign country; (o) be sure laboratory chemicals are disposed of properly; (p) plant trees on baseball grounds; (q) encourage restaurants, cafeterias, canteens, etc. to use reusable wear; (r) pay fines for eco-unfriendly practices; money goes to an environmental protection organization; (s) submit homework on recycled paper, using both sides; (t) do environmental audit of school, etc.; (u) encourage teachers and other staff to set a good example for students; (v) hold class and other school activities outdoors; (w) investigate the use of nonhuman animals in research.

7 Personal practices

(a) recycle gifts and gift wrap; (b) reduce wrapping; (c) use soap that does not pollute water; (d) bring own bags; (e) do not use straws and plastic bags; (f) swap books with friends; (g) pick up litter; (h) keep heat and air conditioning low; (i) eat off of leaves, such as cabbage or banana leaves, instead of plates; (j) encourage low compression engine use; (k) dispose of used oil in an environmentally-friendly manner; (l) turn off lights; (m) do not accept plastic bags; (n) do not let cars idle; (o) give packaging back to stores to dispose of; (p) do not sleep with lights and television on;

(q) reuse water from bath and washing machine for watering plants; (r) wear season-appropriate material; (s) tell people about events, etc. by email rather than fliers, etc.; (t) smoke less, stop smoking and urge others to stop; (u) do not buy products from companies that pollute; (v) use canvas bags when shopping; (w) use the same cup everyday instead of disposable cups; (x) monitor and reduce water use; (y) ride bicycles and walk instead of fossil fuel transport; (z) keep an environmental diary to record what we do, how it affects the environment, and how we feel about it; (aa) use reusable lunch containers, such as Tupperware; (bb) bring your own chopsticks, spoon, etc.; (cc) do not accept fliers handed out in the streets

Note: This list includes ideas from teachers in many countries for students of many ages. Thus, not all ideas will be appropriate for all students in all countries.